

Opencut Mining Program

November 1, 2006

Subject: John Maryott Final Environmental Analysis (EA)

To all interested parties:

On June 20, 2006, John Maryott applied for a permit to mine and crush material from a 40-acre site on the West Bench near Red Lodge, Montana. Final reclamation back to irrigated hayland would be in the year 2020.

A draft EA was mailed to several interested persons. It was advertised in the Carbon County News and made available on the DEQ website. A public comment period ran from August 30th to September 18th. An informal meeting was held in Red Lodge attended by about 25 persons.

Subsequent to analysis and public comments, John Maryott modified his application. The major changes are:

- shortened the hours of operation,
- reoriented the initial pit configuration,
- adjusted soil berm locations, and
- dropped the West Access Road.

Enclosed is the final EA that includes responses to public comments, reflects the above changes in the application, and includes other miscellaneous revisions and corrections. The final EA is also available on the DEQ website at <http://www.deq.mt.gov/ea/opencut.asp>.

DEQ has determined that the operation is in compliance with Montana law, and the application complies with the provisions of the Opencut Mining Act. Therefore, DEQ has issued the mine permit for this site effective as of this date.

If any person wishes to challenge DEQ on the Final EA for this proposed gravel mining operation, he or she may do so as follows. The Montana Environmental Policy Act, which provides for the legal authority and basis for the preparation of EA's and environmental impact statements by state agencies, states at 75-1-201(6), MCA: "A challenge to an agency action under this part may only be brought against a final agency action and may only be brought in district court or in federal court, whichever is appropriate. Any action or proceeding challenging

a final agency action alleging failure to comply with or inadequate compliance with a requirement under this part must be brought within 60 days of the action that is the subject of the challenge.”

Regarding approval of this permit, the Opencut Mining Act at 82-4-427, MCA provides: “(1) A person who is aggrieved by a final decision of the department under this part is entitled to a hearing before the board [of environmental quality], if a written request is submitted to the board within 30 days of the department’s decision. (2) The contested case provisions of the Montana Administrative Procedure Act, Title 2, chapter 4, part 6, apply to a hearing held under this section.” Requests for a hearing under this provision must be submitted to: Secretary; Board of Environmental Review; P.O. Box 200901; Helena, MT 59620-0901.

Please contact Peter Mahrt (406-444-1515; pmahrt@mt.gov), Jo Stephen (406-247-4435; jstephen@mt.gov), or me if you have any questions.

Sincerely,

Neil Harrington
Chief, Industrial and Energy Minerals Bureau
Phone: (406) 444-4973
Fax: (406) 444-1923
E-mail: neharrington@mt.gov

JS/nh

FINAL ENVIRONMENTAL ASSESSMENT

Maryott Gravel Pit Application by John Maryott Near Red Lodge, Montana

An environmental assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose and analyze the impacts of an action, in this case operating a gravel pit over which the state must make a decision, so that an informed decision can be made. MEPA sets no environmental standards even though it requires analysis of both the natural and human environment. This document may disclose many impacts that have no legislatively required standards or over which there is no regulatory authority. The state legislature has provided no authority in MEPA to allow the Department of Environmental Quality (DEQ), or any other state agency, to require conditions or impose mitigations on a proposed permitting action that are not included in the permitting authority and operating standards in the governing state law, such as the Opencut Mining Act, the Clean Air Act of Montana, or any other applicable state environmental regulatory law. Beyond that, a company may agree to voluntarily modify its proposed activities or accept permit conditions.

The state law that regulates gravel-mining operations in Montana is the Opencut Mining Act. This law and its approved rules place operational guidance and limitations on a gravel-mining project during its life, and provides for the reclamation of permitted land area. This law requires that a reclamation bond, cash deposit or other financial instrument be submitted to the state to cover the complete costs of reclaiming the site to its approved, post-mining land use.

The permit decision cannot be based upon the popularity of the project, but upon whether or not the proponent has met the requirements of the Opencut Mining Act, pursuant rules, and other laws pertaining to his proposed actions.

SITE NAME: <u>Maryott</u>	APPLICANT: <u>John Maryott</u>
LOCATION: <u>SE, Sec 10, T7S, R20E</u>	COUNTY: <u>Carbon</u>

SYNOPSIS OF PROPOSED ACTION: John Maryott proposes to mine and crush one million cubic yards of gravel from a 40-acre site near Fox, MT, about 2 miles north of Red Lodge. No asphalt plant, concrete plant, or wash plant are being requested. Mining would be in several phases. Phase I would be for 10 acres. As mining in Phase I is completed, a map and bond would be submitted for subsequent phases. Reclamation of areas where mining is completed would be conducted concurrently. Maximum depth of mining would be about 25 feet. The crusher and most product stockpiles would be placed on the floor of the pit. Normal hours of operation would be from 7 a.m. to 6 p.m. Monday through Friday with hauling from 8 a.m. to 1 p.m. on Saturday. Fueling, maintenance, or a major construction job could be conducted outside those hours. Access would be by a new road about 200 yards long from Highway 212. The West Access Road to Willow Creek has been dropped from the application. Reclamation of the entire 40-acre site would be completed to irrigated pasture by June 2020. The reclamation bond for Phase I is for \$26,373.

Two changes to the plan were made since publication of the Draft EA: 1) the West Access Road was dropped and 2) the Hours of Operation were modified.

Mining and road improvements were begun earlier this year under the 10,000-yard exemption that is allowed under the Opencut Act. As of the end of June 2006 that 10,000 yards had

been excavated, and mining and other related activities ceased until action could be taken on this application.

COMMENTS ON THE MARYOTT APPLICATION

Issues, concerns, and comments have been received in response to the draft EA. Changes were made to the plan in light of written comments and a September 11, 2006 meeting held with concerned citizens. These comments have been consolidated and paraphrased for easier reference. The body of the EA has been revised as necessary.

LEGAL

Comment: Deny the application because it was submitted by John Maryott and not the legal landowner, the Maryott trust.

Response: As part of the permitting process, it is legal to change application materials. The trust does own the property. John and his wife run the trust. A corrected landowner consent form, for the trust, was submitted and found acceptable.

Comment: The application is incorrect in stating that there are no near-by wells that could be significantly impacted.

Response: This error in the application has been corrected. Impacts to the ground water are addressed below.

Comment: This permit is a done deal because they were allowed to mine under the 10,000 yard exclusion.

Response: This permit is/was not a forgone conclusion just because Mr. Maryott chose to exercise his legal right to mine 10,000 yards before applying for a permit under the Opencut Mining Act. A complete analysis is being conducted and a permit decision will be made based upon compliance with applicable laws. The operation must be legal and impacts cannot break environmental laws. The decision on this application will be based on whether the application is in compliance with the Opencut Mining Act and pursuant rules.

Comment: This permit is a done deal just because things like noise or damage to aesthetics or quality of life are not quantifiable like water pollution or habitat degradation are.

Response: As stated above, the permit is not a done deal but neither the county nor the state has specific standards for noise, visual aesthetics, or increased traffic. These standards should be established through local covenants or zoning regulations. Pursuant to the Opencut Mining Act, the proponent would limit visual impacts and noise to the degree practicable by: constructing and vegetating berms around the mining activities, placing crushing equipment in the pit, setting normal hours of operation from 7:00 am to 6:00 pm, and using Jake brakes only in emergency situations.

Comment: I have always thought that someone's right to use his property stopped when it interfered with my ability to enjoy my property.

Response: DEQ may not approve a reclamation plan or plan of operation unless the plans provide that noise and visual impacts on residential areas will be minimized to the degree practicable through berms, vegetation screens, and reasonable limits on hours of operation, [82-4-434(2)(o), MCA (Opencut Mining Act)]. Due to the perceived negative effect of these operations on property values and due to possible excessive noise, dust, safety, and aesthetic impacts, the Montana nuisance law was consulted. The pertinent provisions of Section 27-30-101, MCA, provide: "Definition of nuisance:

- Anything which is injurious to health, indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property or which unlawfully obstructs the free passage or use, in the customary manner of any navigable lake, river, bay, stream, canal, or basin or any public park, square, street, or highway is a nuisance.

- (2) Nothing which is done or maintained under the express authority of statute can be deemed a nuisance.” Subsection (2) of Section 27-30-101, MCA provides an exemption for activity that may otherwise be a nuisance under subsection (1) and is sometimes referred to as the nuisance immunity defense. The interplay between these two subsections was addressed by the Montana Supreme Court in Barnes v. City of Thompson Falls, 1999MT 77, 294 Mont. 76, 979 P.2d 1275. In that case, a storm drain that had been installed by the City of Thompson Falls backed up in a heavy precipitation event, flooding Barnes' basement with caustic sludge. The city's storm drain system is expressly authorized by statute. Barnes filed suit against Thompson Falls, alleging the city's sewer and storm drain system constituted a nuisance. The Montana Supreme Court ruled in favor of the City of Thompson Falls and the principles of that ruling are applied to the above concerns on the proposed Maryott gravel mining operation as follows.
The operation of a mine, crusher, and hauling of gravel from the pit are activities expressly authorized or necessarily implied in the provisions of the Opencut Mining Act. As a result, the impacts from these activities are not considered a civil nuisance under Section 27-30-101, MCA. This legal principle is specifically set forth in Section 27-30-101, MCA, which provides that nothing which is done or maintained under the express authority of statute can be deemed a nuisance.
The only way the impacts from these activities may be a nuisance is if the operator were to commit negligence in conducting these activities. This would be a fact-driven determination based on the manner in which Maryott or his agent actually performs these activities under its permit and would be the proper subject of a private lawsuit between the affected parties and John Maryott. Thus, Section 27-30-101, MCA does not provide a basis for denying approval of the proposed application.

WEST ACCESS ROAD

The West Access Road has been withdrawn from the permit application. Therefore, no other responses to comments are needed.

EAST ACCESS ROAD

Comment: It is unsafe to have a truck access point onto Highway 212 at this location.

Response: Montana Department of Transportation (MDT) issues access permits for all driveways or roads that enter the highway rights of way. State approach standards that consider sight distances in relation to speed, volume of traffic, drainage, and other factors are reviewed prior to approval of a permit. An application for an approach permit was approved by MDT for the east access road.

Comment: The east access road is being constructed on the side of the steep bench that is prone to slumping, as shown by the landslide that occurred about 100 feet to the south of the road layout.

Response: The commentor is correct in that the soils on the slope of the bench are not good for road construction. The bench face is steep and has many natural slump features. According to the Carbon County soil survey, the soils on the bench face are steep and have medium to low permeability because of large silt and clay fractions. Water that infiltrates into these soils does not drain out well. They retain water and saturate easily. This can lead to slumping.

Consideration was given to these conditions. Soils not suited for road construction would not be used. Culverts and ditches would be placed to carry away excess water rather than let it saturate the roadway. Discussion of this issue has been expanded in Section 3 (Soils) of the EA.

Comment: After the latest rains in September erosion occurred on the road.

Response: The road was only partially constructed and some erosion would be expected at this stage until culverts are in place and compaction and grading are completed. Sedimentation from the road into creeks or waters of the state must be controlled both during and after construction.

Comment: Maryott has a road father to the north that he could use.

Response: That road has existed for about 80 years. It reaches the top of the bench just north of the permit boundary and switchbacks down to the valley behind the old log house. It is narrow and was cut into the hillside and natural soils which are not particularly good road-building materials. With heavy truck traffic it probably would not hold up and would slump. Its switchback is too tight for trucks. Major construction to improve and widen it could not be accomplished within its present footprint. Most probably it would also have to come out at the same approach location granted by MDT for the new road since any major change to an existing approach goes through the same process as a new approach.

This route would allow more noise for a longer period of time. To access this route, traffic would have to travel a quarter mile north along the edge of the bench. There would also be an extra 25-foot vertical drop before that alignment reached the same level as the applicant's proposed road. (The proposed road comes out of the bottom of the pit.)

NOISE

Comment: Noise at this site is a nuisance and acceptable noise levels should be established. The crusher and backup alarms were heard all winter and spring when they were operating under the 10,000 yard exclusion. Even the noise from Rock Creek did not muffle it.

Response: The Department may not approve a permit unless the plans provide that noise and visual impacts on residential areas will be minimized to the degree practicable through berms, vegetation screens, and reasonable limits on hours of operation, [82-4-434(2)(o), MCA (Opencut Mining Act)].

The applicant has modified his hours of operation to be in accord with other populated parts of the state such as Gallatin, Flathead, and Missoula Counties. The applicant designed the pit so that, after initial development, the crusher and mining would be conducted in the bottom of the pit. He would also place topsoil in a berm along the eastern edge of the bench. These measures are highly effective mitigation against noise.

Backup alarms are designed to be intrusive so that workers would be aware of vehicles moving around them. They are required on mobile equipment by the US Mine Safety and Health Administration (MSHA). The decibel level of the alarms is regulated by MSHA. It must be louder than the noise of the equipment. Many alarms can be adjusted to be quieter or louder to meet regulations for quieter or louder pieces of equipment.

Comment: Could the hours of operation be shortened?

Response: The applicant changed his requested normal Hours of Operation to 7:00 a.m. to 6:00 p.m., Monday through Friday, with hauling on Saturday from 8:00 a.m. to 1:00 p.m.

There may be occasions when the company would like to extend hours of operation beyond normal hours or on the weekend if a contract deadline must be met or other extenuating circumstances are involved. DEQ would allow extended working hours from 6 a.m. until 10 p.m. up to 15 days in a row. This provision could not be invoked again for 60 days.

Comment: The EA is incorrect in that there are 11 homes and about 20 lots in the Kent subdivision, the nearest being about 700 feet from the pit.

Response: The commentor is right. Corrections were made in the EA.

Comment: The noise from trucks slowly going up/down the access road and then accelerating/decelerating on the highway is much more intrusive than mere highway traffic, even the motorcycles.

Response: This impact is noted in Section 12 of the EA. The time required for trucks to turn into and then navigate the access road would take much longer than trucks or other vehicles just going by on the highway. To the degree practicable we have set reasonable hours of operation to limit this impact.

Comment: Could the orientation of the 1st phase be changed to run east and west so most of the noise would be farther from the edge of the bench? Could the crusher be moved to the west to get it away from the edge of the bench and farther from our homes in the Kent Subdivision which are only 700 feet from the permit boundary? To the west it is almost a half mile to the closest homes.

Response: Noise levels generated by operating equipment at the pit would generally be within the range of 60 to 90 decibels measured on-site, decreasing with distance. A crusher noise level of 85 decibels measured at 50 feet reduces to approximately 79 decibels at 100 feet, approximately 72 decibels at 200 feet and approximately 65 decibels at 400 feet. Changes in the atmosphere (wind direction and air temperature) have a significant effect on noise levels. While the noise level may be reduced by a change in plan, it is unlikely that the impact would be eliminated: backup alarms and crushing operations would still be audible.

Phase I was laid out to allow mining to reduce the elevation of the mouth of the east access road and to allow irrigated farming of the majority of the site for the longest time. As presented above, reorienting the pit could allow mining and the future placement of the crusher several hundred feet farther from the edge of the bench and thus reduce the intensity of noise to near-by residences. DEQ believes it would be reasonable to reorient the pit and has persuaded the proponent to adjust the plan of operation.

Comment: Could signs be posted about not using Jake brakes?

Response: The applicant has changed his plan to state that he will post signs reading "No Jake Brakes, unless emergency" would be posted both entering and leaving the pit.

LAND VALUES

Comment: Two offers to buy property in the Kent Subdivision have been withdrawn since publication of the Draft EA. And one person who had been planning to build on his lots has decided to sell his property instead.

Response: Land values are discussed in Section 8 of this EA.

SLUMP ON THE EAST BENCH SLOPE

Comment: The EA is wrong when it says that too much water had been in the ditch. There was no change in the irrigation practice that had been going on for decades before the gravel pit and west access road were started.

Response: The Draft EA did not state that too much water was in the ditch but we see where the intent of our findings could be misinterpreted and the Final EA includes changes. Please be clear that it was not our intent to infer that the lessee was responsible for the water going over the edge of the bench or to assess blame for the slump in any way. The issue that the EA was attempting to respond to was a statement that building the East Access Road would cause slumping as exhibited by the June landslide on the adjacent property.

WATER, ENVIRONMENTAL FIELD STUDIES, STANDARDS, and BOND

Comment: Mining to a 25-foot depth could intercept ground water, and elimination of irrigation water on these 40 acres would result in impacts.

Response: A report on the West Bench hydrology (Kirk Waren, March 2000) found that the Bench's hydrology is independent from the valley bottom hydrology and mainly flows to Willow Creek and Spring Creek.

Irrigation would be reduced in increments over the life of the project. With concurrent reclamation it may not be totally eliminated, and it would be restored at final reclamation. The reduction or even temporary elimination of irrigation on this site for the mine life would have a negligible impact to water users in the valley. Irrigation flow-through from this 40-acre site from the Bench to the valley is miniscule. The permanent removal of irrigation water through subdivision has the major impact to Bench hydrology.

The plan of operation does not request mining into the water table, diverting, or pumping ground water. If mining were to intercept ground water before reaching the proposed 25-foot depth, mining would have to cease at the higher elevation until an amendment was submitted delineating what actions would be taken concerning ground water, or mining would move into another phase of the 40-acre site. The

opencut mining program rules at ARM 17.24.219(1)(c)(i) require that the land's final reclamation elevation be 3 feet above the ordinary ground water level.

Comment: The EA should address the potential of impacts due to erosion on adjacent properties.

Response: Section 4 of the Final EA addresses storm water runoff.

Comment: Water usage has not been addressed.

Response: The Draft EA stated 4,000 gallons per day would be used during the hottest part of the summer. Estimates of water usage have changed with the removal of the west access road. Magnesium chloride treatments may now not be cost affective. The operator estimates 8,000 gallons per day would be used during the hottest part of the summer. The proponent has stated that he has water rights from a near-by well.

Comments: The EA fails to adequately address reclamation standards.

Response: Reclamation standards are found in the permit within the Plan of Operation and in ARM 17.24.219.

Comment: The EA provides no basis for the calculation of the bond amount.

Response: Documentation for the calculation of the bond is found in the permit. This amount was verified independently by the DEQ and found to be adequate.

FUEL AND SPILL CONTAINMENT

Comment: Fuel spilled could contaminate ground water and there are no specifics about fuel containment.

Response: There are local, state and federal guidelines and requirements for protecting the environment from fuel spills. To minimize the potential for fuel spills, the operator would be required to store fuel in a double-walled tank, or in a lined berm that must be large enough to contain at least 110 percent of the tank capacity, and meet many other standards. The applicant states that he would meet or exceed DEQ guidelines, a copy of which is included in the plan. There are multiple ways of meeting the guidelines and complying with the law. Fines for spilling fuel and contaminating ground water can be severe. The likelihood of a spill contaminating the ground water aquifer is further reduced by immediate clean-up and reporting to DEQ. Contamination of water is also discussed above and in Section 4 below.

A: Significant Unavoidable Impacts B: Insignificant as a result of conditioned mitigation C: Insignificant as proposed

L: Long term or permanent impacts S: Short term impacts

							POTENTIAL IMPACTS
	A	B	C	L	S		EXPLANATION
PHYSICAL ENVIRONMENT							
1. <u>TOPOGRAPHY</u>				X	X		<p>The main permit area is a flat, flood-irrigated field near the edge of the West Bench. The east access road from Highway 212 would slant up the face of the bench at about a 6 to 8 percent grade.</p> <p>The west access road out to Willow Creek Road has</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
						<p>been dropped.</p> <p>The east access road would remain after mining. The permit area would be sloped to allow post-mine irrigation.</p>
2. <u>GEOLOGY</u> ; Stability			X	X		<p>Rock Creek cut down through rocky, glacial outwash material from the Beartooth plateau and created the East and West Benches 100 to 140 feet high on either side of the half-mile wide valley floor.</p> <p>The West Bench slope face is very steep - from 25 to 45 percent. It has many springs and small slumps fed mainly by irrigation water that infiltrates through the fields and works its way horizontally over to the slope face. Vegetation such as aspen, cottonwoods, and many different shrubs take advantage of this water supply.</p> <p>Maximum mining depth would be 25 feet. The gravel removal would be a permanent impact.</p>
3. <u>SOILS</u> ; Quality, Distribution			X	X		<p>Soils of the permit area are alluvial loam of the Charlos Series. The parent material is gravel outwash from the glaciated Beartooth Plateau. The soils are neutral to slightly acidic. The dark topsoil layer is about 6 inches deep with about 12 inches of clay-loam subsoils. The U.S. Department of Agriculture's soil survey ranks the suitability of these soils below 30 inches from the surface as "Good" for sand and gravel extraction, "Good" for fill subgrade material, "Medium Stability and Fair Compaction" for embankments, "Generally Favorable" for highway location, and "Favorable" for winter grading.</p> <p>Several county roads, field access roads, and irrigation ditches traverse the bench face. These have been stable over the years when impacted by normal runoff and spring flows. The Maryott access road a few hundred yards to the north has been in existence for 80 years without slumping.</p> <p>In June 2006 a landslide event occurred that apparently entailed a different, abnormal set of circumstances. Irrigation water from a ditch (not from normal rainfall or infiltration) ran over the edge of the bench, saturated the slope and caused a slump or landslide that started near the top of the slope and carried down hill and across about 100 feet of the heavily vegetated valley floor. The flow stopped in the borrow ditch of Highway 212.</p> <p>Construction of the east access road was not involved in</p>

				POTENTIAL IMPACTS		
	A	B	C	L	S	EXPLANATION
						<p>the slump.</p> <p>The East Access Road. This road is partially cut into the slope and partially built of gravel fill. Culverts would be placed to carry seepage or precipitation runoff away. Again according to the soil survey, the gravel being used for this road construction is rated as good as a source of sand and gravel and for fill material subgrade. When used in embankments it has medium stability and fair compaction characteristics with medium to high permeability when compacted.</p> <p>In engineering terms, this gravel has good road-building characteristics. It is well graded with a range of different sized material, and there are enough fines - "glue"- to keep it in place and not slump. Because it allows water to drain through it, it does not become supersaturated leading to landslides or slumps.</p> <p>A sketch of the east access road has been submitted that indicates the top portion of the roadway would be between highwalls for noise mitigation, the travelway would be 24 feet wide, the grade would be 6 to 8 percent, an 18-inch culvert would be placed under the lower section of the road, and a rocked, drainage ditch with culverts would direct drainage from the bench side of the road to the outside edge of the road, reducing the amount of water that would be delivered off the switchback about 100 feet from the property boundary. Runoff from the east access road could not be directed toward neighboring properties. A sketch of the road indicates that it would fit generally used grades and widths for roads of this type.</p> <p>The soils on the top of the bench are good for both dryland and irrigated farming since they hold moisture well in the upper horizons and the underlying gravels drain well. Good soil salvage would result in no significant adverse impacts to this soil. They are good reclamation material. Average annual precipitation on the bench is about 18 inches.</p>
4. <u>WATER</u> ; Quality; Quantity; Distribution			X		X	<p>There are no wells on the bench in the vicinity of the site. Rock Creek is located east of Highway 212 well below the elevation of the mine site. It would not be impacted by operations.</p> <p>Stormwater would be retained in the main permit area, generally within the pit. The pit slopes away from the east access road thereby reducing or eliminating runoff</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
						<p>and possible water erosion from the site.</p> <p>Construction of the drainage ditches and proper placement of culverts and sedimentation control devices on the east access road would carry runoff and sediment from the roadway. This sediment would not enter springs or creeks that are waters of the state. Sedimentation control devices, such as wattles or silt fences might be required at some locations.</p> <p>Farming and irrigation on the undisturbed portion of the mine site and on surrounding lands would continue. Ditches on Maryott's property could be rerouted around the active mining areas but would not interfere with other landowner's water amounts or points of delivery.</p> <p>Irrigation in the active mining area would be temporarily curtailed. This would decrease, to a small degree, infiltration and the amount of water available to vegetation on the bench slope, but any potential adverse effect to plant growth would be short-term. Mining in this area would not disturb the water table. This plan does not speak to mining in the ground water or request dewatering and, therefore, those practices would not be allowed. If ground water were to be intercepted above the estimated 25-foot ultimate depth, mining could not proceed to that level. Reclamation requires that at least 3 feet of overburden and soil materials must be maintained above the ordinary water table.</p> <p>A lined and bermed containment area would be placed around and under the fuel tank according to the approved fuel storage guidelines to reduce potential impact to surface and ground water.</p> <p>Impacts to water quality or quantity from this operation would be expected to be minimal.</p>
5. <u>AIR</u> ; Quality			X		X	<p>Air quality standards are based upon the Clean Air Act of Montana and associated rules and are administered by the DEQ Air Resources Management Bureau. DEQ has an Environmental Protection Agency (EPA)-approved air quality program. Permits and permit conditions are established to promote compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health and the environment.</p> <p>DEQ, in an effort to protect air quality, operates an air quality program that includes permitting, compliance,</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
						<p>and enforcement staff. The air quality program staff members are available to answer any specific questions of interested parties.</p> <ul style="list-style-type: none"> The Air Permitting Section (Dave Klemp (406-444-0286)) is available to answer any questions on air quality permits for a specific company and the operating conditions that are established in those permits. The Air Compliance Section (Dan Walsh (406-444-9786)) is available to answer questions in regard to operations of a facility in a particular area and the inspections and testing that may be required for the facility. The Compliance Management Section of the Enforcement Division (Larry Alheim (406-444-2411)) is able to answer questions on the compliance history of a facility. This section is also responsible for enforcing the clean air laws, should violations of those laws occur. <p>Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is regulated at mine sites by gauging opacity - measuring visibility through the dust plume.</p> <p>A water truck would be available for dust control on-site and on the access road. It is anticipated that during the hottest summer days an average of 8,000 gal/day of water would be used to control fugitive dust.</p> <p>Magnesium chloride treatment may also be used in heavy traffic areas or on the access road. Magnesium chloride is an approved, very widely used dust control agent. There is a wide range of other approved products also available.</p> <p>The crusher has an air quality permit that meets the standards required under the Montana Clean Air Act.</p> <p>Air quality impacts, if operations are managed correctly, would be minimal and would not cause a health hazard.</p>
6. <u>UNIQUE, ENDANGERED, FRAGILE, or LIMITED</u> environmental resources			X	X		<p>No species of special concern live on or near this site. Because this site is farmed and disturbed, it does not provide native habitats.</p> <p>An inquiry to the Montana Natural Heritage Program disclosed that 3 species of concern might live in the general area. The Preble's shrew requires sagebrush habitat. Both the lynx and beautiful fleabane require montane or subalpine habitats that also do not exist close to this location.</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
BIOLOGICAL ENVIRONMENT						
1. <u>TERRESTRIAL, AVIAN,</u> and <u>AQUATIC</u> ; species and habitats			X		X	<p>Deer and on rare occasions elk graze these fields. Small mammals, waterfowl, song birds and other animals utilize these and surrounding fields.</p> <p>Mining would have minimal impact because of the small area that would be disturbed and the relatively short timeframe for disturbance.</p>
2. <u>VEGETATION</u> ; quantity, quality, species			X		X	<p>The main permit area is irrigated hayland with grasses and clover. The east access road crosses riparian habitat in the Rock Creek Valley. There are no Army Corps of Engineers regulated wetlands in this area.</p> <p>Mining would have minimal impact because of the short duration of the project and reclamation to an irrigation seed mix. Only about one acre would be permanently disturbed by access road.</p> <p>State law requires that a mine site be reclaimed to some beneficial use, in this case restoring the land to irrigated pasture or hayland. If a portion of the site is no longer needed for the mining operation, it would be reclaimed before the final reclamation date.</p> <p>Reclamation bonds are calculated to cover the costs to the State of Montana of returning a property to the proposed productive, post-mining land use - in this case pasture - should the permit holder be unable to fulfill the requirements of the permit. Reclamation bonds include money to grade highwalls (at \$1.00 per cubic yard), replace soil (at \$1.35 per inch of soil per acre), spray for noxious weeds (at \$100.00 per acre), and other activities included in the plan of operations, plus a 10 percent administrative fee. This initial reclamation bond would be \$26,373 and would be modified should contingencies such as more topsoil than estimated be salvaged or the cost to the state for contracting reclamation equipment increase.</p>
3. <u>AGRICULTURE</u> ; grazing, crop production			X		X	<p>Mining would result in a short term reduction of hay and pasture production. About 10 acres would be taken out of production during the first phase. In this area the average irrigated production is about 2 tons per acre.</p> <p>Production loss would be about 1.5 tons per acre per year or about 15 tons per year for Phase I. If the entire 40 acres were disturbed at the same time maximum</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
						agricultural production loss would be increased by a multiple of four. However, in reality, concurrent reclamation would be replacing some production.
HUMAN ENVIRONMENT						
1. <u>SOCIAL</u> ; structures and mores						No impacts anticipated.
2. <u>CULTURAL</u> uniqueness/diversity			X	X		The City of Red Lodge started in the late 1800's as a coal mining community. When the coal market faded in the middle of the twentieth century, agriculture, mainly ranching, became, and remains, the main source of income in the area. However, recreation is contributing the major portion of current income to the city. New businesses mainly cater to this industry. This gravel mine would help provide construction and road building materials for growth.
3. <u>POPULATION</u> ; quantity/diversity			X	X		Carbon County and the Red Lodge area are growing in population. The county's population grew 18.2 percent during the last census period. The 2005 population estimate of the county is another 3.7 percent higher at 9,902 people. Most of these people are drawn by the year-round recreational amenities of the area. The gravel pit would have little or no effect on the population of the area but would supply needed resources for the growth.
4. <u>HOUSING</u> ; quantity/distribution			X	X		Much development is occurring along Rock Creek and in the golf course area where several large subdivisions have been approved. The benches and foothills farther from town are being broken into small ranchettes and acreage residential sites. Some are seasonal recreational structures, and others are year-round homes. Values range from small, inexpensive cabins to multi-million dollar domiciles.
5. <u>HUMAN HEALTH & SAFETY</u>			X		X	On-the-job safety is regulated by the Mine Safety and Health Administration (MSHA). Both federal and state inspectors could visit the site at any time without previous notice. See Section 4 - Air above for health hazards due to dust. Traffic safety is regulated under both federal and state standards by the Montana Department of Transportation (MDT) with enforcement by the Highway Patrol and local police. See Section 15 - Traffic for a discussion of the possible impacts to traffic.
6. <u>COMMUNITY & PERSONAL INCOME</u>			X		X	No significant impacts anticipated.

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
7. <u>EMPLOYMENT</u> ; quantity, distribution			X		X	No significant impacts anticipated. (Same as above.)
8. <u>TAX BASE</u> ; state/local tax, <u>LAND VALUES</u>			X	X		<p>Local, state, and federal tax revenue may increase depending on how the land is taxed upon conversion to industrial use with the licenses and fees the proponent is required to pay, and whether the proponent adds employees or equipment, increases overall production, or moves employees and equipment from one jurisdiction to another.</p> <p>Under the Opencut Mining Act, the Legislature has provided DEQ two means of mitigating the effects of gravel operations on adjacent property. First, DEQ has authority to protect air quality; to minimize noise and visual impacts to the degree practicable through use of berms, vegetation screens, and limits on hours of operation, and to otherwise prevent significant physical harm to adjacent land. Second, the site must be reclaimed in order to protect and perpetuate the taxable value of land on which operations are complete.</p> <p>Several years ago, DEQ contracted a study to determine "whether the existence of a gravel pit and gravel operation impacts the value of surrounding real property." The study (Rygg, February 1998) involved some residential property near two gravel operations in the Flathead Valley. Rygg concluded that the above-described mitigating measures were effective in preventing decrease in taxable value of those lands surrounding the gravel pits. In his review of the study, Jim Fairbanks, Region 3 Manager of the Montana Department of Revenue, Property Assessment Division said:</p> <p>"In the course of responding to valuation challenges of ad valorem tax appraisals, your reviewer has encountered similar arguments from Missoula County taxpayers regarding the presumed negative influence of gravel pits, BPA power lines, neighborhood character change, and traffic and other nuisances. In virtually ALL cases, negative value impacts were not measurable. Potential purchasers accept newly created minor nuisances that long-time residents consider value diminishing."</p>
9. <u>GOVERNMENT SERVICES</u> ;						No impacts anticipated.
10. <u>INDUSTRIAL</u> ,						No impacts anticipated.

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
<u>COMMERCIAL</u> and <u>AGRICULTURAL</u> activities						
11. <u>HISTORICAL</u> and <u>ARCHAEOLOGICAL</u>						<p>A June 28, 2006 letter from the State Historic Preservation Office (SHPO) states that SHPO records show no previous recorded cultural resource sites in or around the proposed opencut operation area. A site inspection by a DEQ environmental specialist did not reveal any artifacts, signs of occupation, or other cultural resources. Surface disturbance by farming has decreased the likelihood that such resources could be found on site. If during operations resources were to be discovered, activities would be halted and temporarily moved to another area until SHPO could be contacted and the importance of the site determined.</p>
12. <u>AESTHETICS</u>			X	X		<p>The mine was started under the law's 10,000 yard exclusion. Topsoil was salvaged and stockpiled to the west. Using excavated gravel the west access road easement was improved and construction was started on the east access road.</p> <p>There are seven homes near the mine area in the Kent Subdivision. They are across Highway 212, the nearest being about 700 feet east of and at least 100 feet below the site. No homes to the west are within a half mile of the pit. The nearest home to the west is at the intersection of the west access road and Willow Creek Road, set back about 100 yards from each, with access off the access road. A second ranch complex has used the access road for at least 30 years. Two other homes are several hundred yards back from Willow Creek Road, south toward Highway 78.</p> <p>Noise: No efforts can eliminate all noise from any operation. The mine design sets the pit back from the edge of the bench. Most activities, if approved, would be conducted in the bottom of the pit. This is one of the most effective visual and noise mitigation measures that can be taken. As the pit is expanded and deepened, it becomes more effective.</p> <p>The largest impact would be from the noise of truck traffic. The operator has stated that "Jake brakes" would not be used unless in an emergency.</p> <p>Truck noise on the east access road would be audible to residents of the Kent Subdivision. The upper portion</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
						<p>of the road was cut into the bench, leaving the natural hill slope to help block truck noise. As the road progresses downhill to the outside edge of the slope, there would be only vegetation to help block the noise. The cottonwoods when not in leaf would do little to reduce noise. The existing traffic noise on Highway 212 creates a background noise level. Because the trucks from the site would be speeding up and slowing down on the highway, and running the slope of the access road in lower gears, each truck would have a longer but not necessarily louder impact on the neighborhood.</p> <p>Visual: The mine is very difficult to see from Highway 212 because of its location on top of the West Bench over 100 feet in elevation above the highway. Cottonwoods also help block the view of the access road. The mine is not visible from Willow Creek Road.</p>
13. <u>ENVIRONMENTAL PLANS</u> and <u>GOALS</u> ; local and regional						No impacts anticipated.
14. <u>DEMANDS</u> on <u>ENVIRON- MENTAL RESOURCES</u> of land, water, air and energy						No impacts anticipated.
15. <u>TRANSPORTATION</u> ; networks and traffic flows			X		X	<p>MDT has issued an Approach Construction Authorization for the east access road onto Highway 212. This means that with proper construction, the location meets safety standards. The approach would be inspected by MDT.</p> <p>Traffic: To calculate the mine's average daily traffic (ADT) or number of trucks per day, one divides the total amount of gravel to be removed (1,000,000 cubic yards) by the life of mine (14 years), by the number of work days per year (312) by the size of the trucks (20 yards). Then multiply by two for round trips. Rounding up, this results in 23 ADT by trucks.</p> <p>This number can then be compared to MDT traffic counts. MDT records show on average over the year 2780 vehicles per day go past this site on Highway 212. The annual large truck percentage is 1.4 percent or about 47 per day. The increase of heavy trucks would be from 47 to 70 ADT.</p>

						POTENTIAL IMPACTS
	A	B	C	L	S	EXPLANATION
						However, the construction industry must work when the weather is good and often shuts down for 1 to 2 months in the winter. So summertime numbers, especially if there were a major road job, would be substantially higher.

REGULATORY IMPACT ON PRIVATE PROPERTY: The analysis done in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property so as to constitute a taking.

PUBLIC INVOLVEMENT: Landowner, Natural Heritage Program, State Historic Preservation Office **OTHER GROUPS OR AGENCIES CONTACTED OR WHICH MAY HAVE OVERLAPPING JURISDICTION:**

Air Resources Management Bureau, Mining Safety and Health, MT Dept. of Transportation, Carbon County Commissioners, Carbon County Weed Board, Carbon County Planning Department

ALTERNATIVES CONSIDERED: Denial

RECOMMENDATIONS CONCERNING PREPARATION OF AN EIS: Unnecessary, No Significant Impacts

Reference Cited

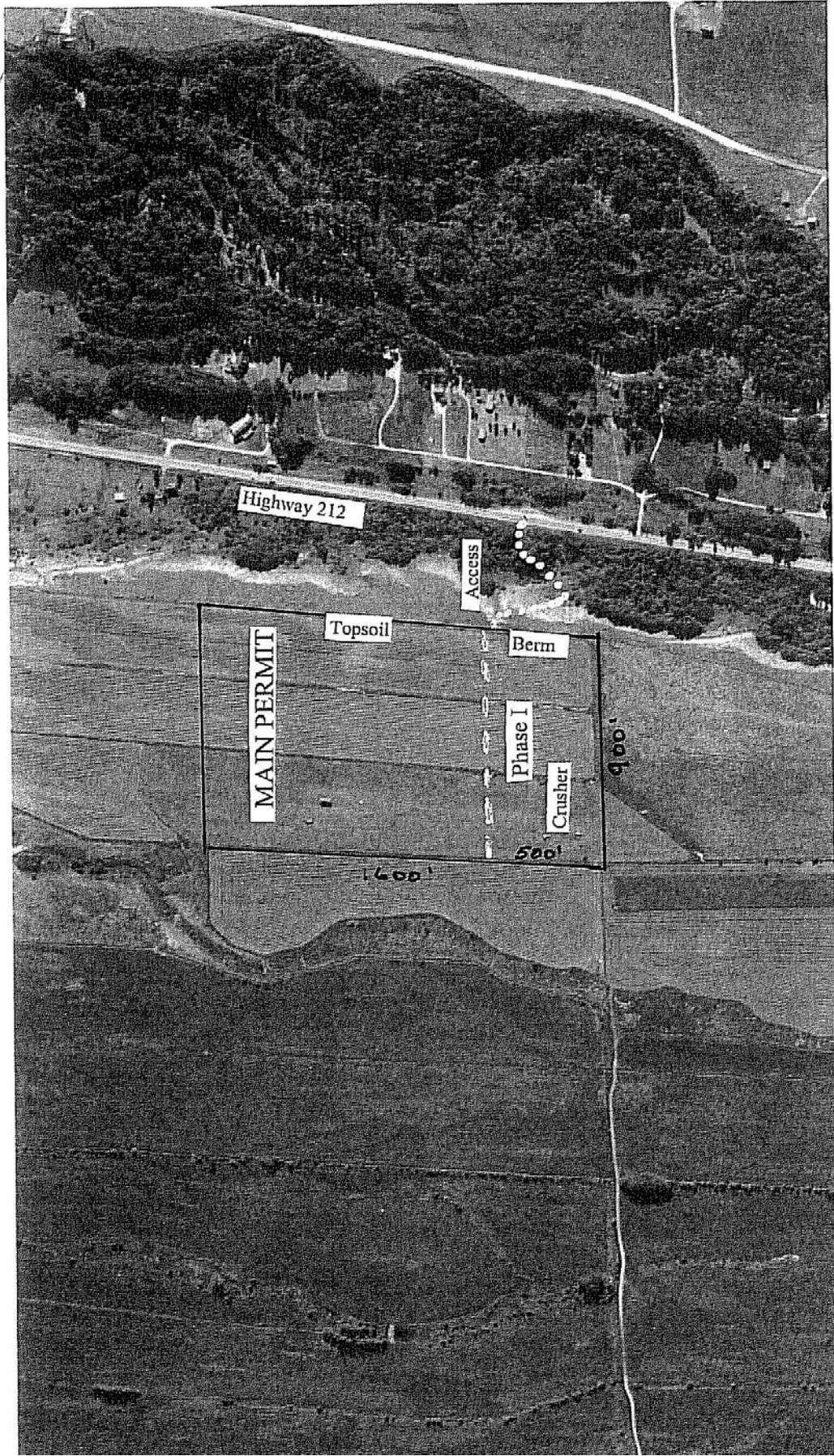
Waren, Kirk. March 2000. Groundwater levels at the south end of the Red Lodge Bench near Red lodge, Montana. Montana Department of Natural Resources and Conservation. 21pp.

APPROVED BY: _____ DATE: _____

Prepared by Jo Stephen, October 2006

MARYOTT PIT SE Section 10 T7S R20E

DEC 27 2008



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